

Product Data Sheet

PS-00291, Rev. B

May 2007

Micro Motion® Series 3000 Transmitters and Discrete Controllers

Micro Motion® Series 3000 electronics combine transmitter functions and PLC capabilities in one instrument. Series 3000 models feature MVD™ technology, providing high-speed DSP capabilities and a broad range of specialty applications.

Large operator interface for easy setup & control

- 128 x 128 pixel display enhances view of process
- Easy to read menus and advanced help system

Transmitter and discrete control from a single instrument

- Functions as an advanced process transmitter or as a discrete batch controller, with 8 I/O channels for maximum adaptability
- HART® and Modbus® support expand communications options

Wide variety of applications

- Concentration & net flow measurement
- Custody transfer with batch control
- Patented meter verification application

2400S

Compact integral transmitter

1700

2700

Versatile field-mount transmitter

1500

2500

Compact control-room transmitter

3300

3350

Frequency-input discrete controller

3500

3700

Integrated control and measurement platform



Micro Motion®


EMERSON
Process Management

Micro Motion transmitters and controllers

Micro Motion transmitters and controllers fit a wide variety of application needs. The table below can help determine which Micro Motion products are right for your process. For more detailed product information, consult the appropriate Product Data Sheet or contact your local Micro Motion representative.

	1500	1700	2400S	2500	2700	3300	3350	3500	3700
Output variables									
Mass / volume flow	●	●	●	●	●	●	●	●	●
Net mass / volume flow			●	●	●		●	●	●
Temperature		●	●	●	●		●	●	●
Density		●	●	●			●	●	●
Concentration		●	●	●			●	●	●
Local display									
2-line		●	●		●				
Multi-line						●	●	●	●
Outputs									
4–20 mA	●	●	●	●	●		●	●	●
10 kHz pulse	●	●	●	●	●		●	●	●
Discrete	●		●	●	●	●	●	●	●
HART®	●	●	●	●	●	●	●	●	●
Modbus®	●	●		●	●	●	●	●	●
FOUNDATION fieldbus™					●				
PROFIBUS-PA					●				
PROFIBUS-DP			●						
DeviceNet®			●						
Inputs									
10 kHz pulse						●	●	●	●
Discrete			●	●	●	●	●	●	●
4-wire Coriolis sensor	●	●		●	●		●	●	●
9-wire Coriolis sensor	●	●		●	●		●	●	●
Mounting									
Integral – Field		●	●		●				
Remote – Field		●			●		●		●
Remote – Control room	●			●		●		●	
Application type									
Batch controller						●	●	●	●
Custody transfer					●	●	●	●	●
Filling & dosing	●								
Meter verification	●	●	●	●	●		●	●	
Hazardous approvals									
C1D1			●		●				
C1D2	●	●	●		●		●		●
Zone 1	●				●		●		●
Zone 2	●	●			●		●		●

Series 3000 transmitters and discrete controllers

MVD technology. MVD technology makes your Micro Motion meter work smarter. Front-end digital processing dramatically reduces signal noise and gives you faster response time compared to analog devices.

Only MVD technology allows you to:

- Measure multiple variables
- Install easily with a standard 4-wire signal cable
- Identify and resolve problems easily with built-in smart diagnostics
- Choose transmitter capabilities based on your application's needs
- Upgrade transmitter functionality as needed

Series 3000 transmitters and controllers with MVD

technology. Model 3500 and 3700 transmitters deliver process measurement and discrete control based on direct input from a Micro Motion Coriolis meter. Model 3300 and 3350 controllers provide discrete control based on a frequency input from a remote transmitter. Series 3000 models are available with specialty applications, such as batch control, enhanced density measurement, petroleum measurement, custody transfer, and meter verification.

Configuration, operation, and maintenance are all accomplished using the innovative Series 3000 user interface. The interface features a large, easy-to-use backlit display with big, tactile-feedback push buttons. Other user interfaces (such as hand-held communication devices) are not required, but can be used. Modbus and HART communication allow configuration devices such as ProLink II, AMS, and HART Communicators to be used with the Series 3000, and the Series 3000 can be integrated into a PlantWeb network.

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Housings

Rack-mount	19-inch (486.2 mm) rack-mount housing meets DIN standard 41494 and IEC 297-3 Front panel is rated IP40
Panel-mount	Front panel with bezel is rated NEMA 4X (IP65)
Field-mount	Compartment with threaded cover contains electronics Terminal compartment contains: <ul style="list-style-type: none">• Non-intrinsically safe compartment with input/output and power supply terminals• Intrinsically safe compartment with interface/display, sensor terminals (Model 3700 only), and optional input and output terminals Mounting bracket and interface/display rotate to allow mounting in four different orientations Rated NEMA 4X (IP67)

Applications

Process monitor/totalizer	Process monitoring and totalizing for multiple variables, including mass flow, volume flow, density, and temperature.
Discrete batch control	<ul style="list-style-type: none">• Configuration of up to six preset batch recipes• One-stage or two-stage batch control• End-of-batch warning and batch-overrun alarms• Configuration by quantity or by percent of target for primary valve closure, secondary valve opening and closure, end warning, and batch overrun• Configuration for target lockout, or for target adjustment during batch operation• Automatic overshoot compensation
Meter verification	Provides <i>in-situ</i> assessment of a Micro Motion Coriolis meter, determining whether the meter has been affected by erosion, corrosion, or other influences affecting meter calibration. No secondary references are required to perform this operation.
Enhanced density	Enhanced density measurement for a number of applications, including: <ul style="list-style-type: none">• %HFCS, °Brix, °Plato, °Balling,• Baumé at SG60/60• Density at reference temperature• Specific gravity• Concentration derived from reference density• Concentration derived from specific gravity
Custody transfer	<ul style="list-style-type: none">• Physical and software security• Security-alarm posting• Mass or volume totalizer that can be configured by the user• Custom formatting of receipt tickets• Audit trail of configuration changes• Multidrop printing capability
Petroleum measurement (API)	Provides API process variables, such as API volume flow and API average density.

Interface/display

Display

Models 3300 and 3500	Backlit LCD, 128 × 128 pixel, bit map Adjustable contrast Non-glare, chemical-resistant acrylic lens
Models 3350 and 3700	Backlit LCD, 128 × 128 pixel, bit map Adjustable contrast Non-glare tempered glass lens Suitable for hazardous area installation

Keypad membrane switch	Large push buttons with tactile feedback Software-defined function keys Chemical-resistant polyester
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Electrical connections

Input and output connections

Rack-mount	Type D connectors per DIN standard 41612 (IEC 603-2) Available as solder tails (standard) or screw terminals (optional) Screw terminals accept 24 AWG (0.25 mm ²) to 16 AWG (1.5 mm ²) wires
Panel-mount	Screw terminals (standard) or I/O cable with remote DIN rail-mount screw terminals (optional) Remote terminals attach to any of four rail types. I/O cable is available in lengths of 2, 5, and 10 feet (0.6, 1.5, and 3 meters) Screw terminals accept 24 AWG (0.25 mm ²) to 16 AWG (1.5 mm ²) wires
Field-mount	Two color-coded wiring compartments: <ul style="list-style-type: none">Compartment with intrinsically safe terminals has two 3/4-inch NPT or M20 × 1.5 conduit openingsCompartment with non-intrinsically safe terminals has three 3/4-inch NPT or M20 × 1.5 conduit openings Screw terminals accept 22 AWG (0.34 mm ²) to 16 AWG (1.5 mm ²) wires

Power connection

Rack-mount	Screw terminals are fixed to rack chassis Ground makes first and breaks last Screw terminals accept 18 AWG (0.75 mm ²) to 14 AWG (2.5 mm ²) wires
Panel-mount	Screw terminals accept 18 AWG (0.75 mm ²) to 14 AWG (2.5 mm ²) wires
Field-mount	Screw terminals accept 18 AWG (0.75 mm ²) to 12 AWG (4.0 mm ²) wires

Input signals

Non-intrinsically safe input signals

One 2-wire frequency/pulse input	Frequency range	0–20,000 Hz
	Minimum pulse width	25 µ-sec
	Power	Sourcing or sinking
	Voltage	0–0.8 VDC low state 3–30 VDC high state
	Current	Nominal 5 mA pull-up
Two discrete momentary inputs	Pulse width	0.15 sec minimum
	Voltage	0–0.8 VDC low state 3–30 VDC high state Dry contacts

Intrinsically safe input signals

One 4-wire Coriolis sensor signal input with ground

Output signals

Non-intrinsically safe output signals

Two active 4–20 mA outputs	Isolated to ±50 VDC from all other outputs and earth ground
	Maximum load limit of 1000 Ohms
	Output is linear with process from 3.8 to 20.5 mA per NAMUR NE43 (June 1994)
Three discrete outputs	Configurable for the application
	Polarity Active high or active low, software selectable
	Power Internal pull-up to 24 V
	Voltage 24 VDC nominal
	Current Sourcing at 5.6 mA when $V_{out} = 3$ VDC
	Sinking up to 500 mA at 30 VDC maximum
One 2-wire frequency/pulse output	Scalable to 10,000 Hz
	Output is linear with flow rate to 12,500 Hz
	Pulse width 50% duty cycle above the crossover frequency ⁽¹⁾
	Configurable between 0.543 ms and 277 ms
	Polarity Active high or active low, software selectable
	Power Active or passive, software selectable
	Voltage 24 VDC nominal, active
	30 VDC applied maximum, passive
	Current Sourcing at 10 mA at 3 VDC, active
	Sinking at 500 mA, active or passive

(1) The crossover frequency depends on the configured value of the pulse width. At the minimum pulse width value of 0.543 ms, the crossover frequency is 922 Hz. At the maximum pulse width value of 277 ms, the crossover frequency is 1.8 Hz.

Output signals *continued*

Fault indication

When a fault is detected, outputs go to configured states. User can select upscale, downscale, internal zero, or none. Milliamp outputs conform to NAMUR NE43 (June 1994).

Upscale	Milliamp	21 to 24 mA, user configurable
	Frequency	15,000 Hz
Downscale	Milliamp	1 to 3.6 mA, user configurable
	Frequency	0 Hz
Internal zero		Drives the mA and frequency outputs for process variables to zero values
None		Ignores fault conditions

Digital communications

RS-485 port One pair of terminals supports SP (service port) mode or RS-485 mode. On device power-up, the user has 10 seconds to connect in SP mode. After 10 seconds, the terminals switch to RS-485 mode. The communication parameters in SP mode are:

Data rate	38,400 baud
Parity	No parity
Stop bit	One stop bit
Address	111

In RS-485 mode, the Series 3000 can communicate via Modbus RTU, Modbus ASCII, or HART⁽¹⁾ protocols. The communication parameters are configurable with ProLink II software, Modbus, or the display. The shipped default parameters are:

Data rate	9600 baud
Parity	Odd
Stop bit	One stop bit

The RS-485 port can also be configured as a printer port (see below).

HART Bell 202⁽¹⁾ The HART Bell 202 signal is superimposed on the primary mA output, and is available for host system interface. The HART Bell 202 communication parameters are:

Frequency	1.2 and 2.2 KHz
Amplitude	0.8 mA peak-to-peak
Data rate	1200 baud
Resistance	Loop requires 250 to 600 Ohms resistance

Printer port The RS-485 port can be configured as a printer port. When the RS-485 port is configured as a printer port, it cannot be used for any other function.

Requires external RS-232 adapter (not included)

Bidirectional with Epson printer; send only with all other printers and when using a multidrop configuration

(1) Using HART, it is possible to configure basic transmitter functionality, and read/write batch setpoints and totals. Series 3000 batch applications or enhanced density applications cannot be configured using HART. Using Modbus, all transmitter functionality, batch commands, and batch applications can be controlled.

Environmental specifications

EMI effects	All Series 3000 devices Meet EMC directive 89/336/EEC per EN 61326 Industrial, and all Series 3000 devices conform to NAMUR NE21 (June 1997).		
Ambient temperature effect	On analog outputs	±0.005% of span per °C	
Ambient temperature limits⁽¹⁾	Operating	–4 to +140 °F	–20 to +60 °C
	Storage	–40 to +158 °F	–40 to +70 °C
Temperature accuracy	Models 3500 and 3700	±1.0 °C ±0.5% of reading in °C	
Temperature repeatability	Models 3500 and 3700	±0.2 °C	
Humidity limits	5 to 95% relative humidity, non-condensing at 140 °F (60 °C)		
Vibration limits	Per IEC 68-2-6, endurance sweep, 5 to 2000 Hz, 50 sweep cycles at 1.0 g		

⁽¹⁾ If exposed to direct sunlight, the ambient temperature can be expected to rise by an additional 50 °F (10 °C).

Power supply

AC power supply

Model 3300	85 to 265 VAC 50/60 Hz, 15 VA 0.25 A maximum at 85 VAC, 0.12 A maximum at 265 VAC IEC 127-3/4 fuse, 0.63 A time-delay Complies with European low-voltage directive 2006/95/EC per IEC 61010-1 Installation (Overvoltage) Category II, Pollution Degree 2
Models 3350, 3500, and 3700	85 to 265 VAC 50/60 Hz, 30 VA 0.33 A maximum at 85 VAC, 0.15 A maximum at 265 VAC IEC 127-3/4 fuse, 0.63 A time-delay Complies with European low-voltage directive 2006/95/EC per IEC 61010-1 Installation (Overvoltage) Category II, Pollution Degree 2

DC power supply

Model 3300	18 to 30 VDC 7 watts typical, 14 watts maximum IEC 127-3/4 fuse, 1.6 A time-delay
Models 3350, 3500, and 3700	18 to 30 VDC 18 watts typical, 25 watts maximum IEC 127-3/4 fuse, 1.6 A time-delay

Hazardous area classifications

UL is a U.S.A. approvals agency. CSA is a Canadian approvals agency that provides approvals accepted in both the U.S.A. (C-US) and Canada. ATEX is a European directive.

UL and CSA	Model 3300	Class I, Div. 2, Groups A, B, C, and D when installed in a suitable enclosure
	Model 3350	Class I, Div. 2, Groups A, B, C, and D
	Model 3500	Class I, Div. 2, Groups A, B, C, and D when installed in a suitable enclosure Provides non-incendive sensor outputs for use in Class I, Div. 2, Groups A, B, C, and D, or intrinsically safe sensor outputs for use in Class I, Div. 1, Groups C and D; Class II, Div. 1, Groups E, F, and G
	Model 3700	Class I, Div. 2, Groups A, B, C, and D Provides non-incendive sensor outputs for use in Class I, Div. 2, Groups A, B, C, and D, or intrinsically safe sensor outputs for use in Class I, Div. 1, Groups C and D; Class II, Div. 1, Groups E, F, and G
ATEX	Model 3350	ATEX Zone 1 CE 0575 II 2G EEx de [ib] IIB/IIC T4
	Model 3500	Safe area only. Can be connected to a sensor in ATEX Zone 1 area. CE 0575 II (2)G [EEx ib] IIB/IIC
	Model 3700	ATEX Zone 1 CE 0575 II 2G EEx de [ib] IIB/IIC T4

Model 3100 accessory

Relays module	Three relays Solid state, SPST Rated at 24–250 VAC, 40 mA to 5 A; or 0–70 VDC, 5 A Energized by discrete outputs NEMA 4X (IP65) enclosure (optional)
UL and CSA approvals	Class I, Div. 2, Groups A, B, C, and D
ATEX approvals	Suitable for installation in Zone 2, when properly installed in a suitable enclosure, complying with ATEX Directive (94/9/EC) for Group II, Category 3G, according to CENELEC standard EN 50021 (1998) and marked as: EEx n V II T4 KEMA 97 ATEX4940X Ambient temperature –20 to +60 °C (–4 to +140 °F) Additional installation-specific requirements are described in detail in the Series 3000 instruction manual.

Model 3500/3700 liquid flow performance

Sensor model		
Mass flow accuracy⁽¹⁾⁽²⁾	ELITE®	±0.05% of rate
	F-Series	±0.10% of rate
	H-Series	±0.10% of rate
	T-Series	±0.15% of rate
	R-Series	±0.50% of rate
Volume flow accuracy⁽¹⁾⁽²⁾	ELITE	±0.05% of rate
	F-Series	±0.15% of rate
	H-Series	±0.15% of rate
	T-Series	±0.25% of rate
	R-Series	±0.50% of rate
Repeatability⁽²⁾	ELITE	±0.025% of rate
	F-Series	±0.05% of rate
	H-Series	±0.05% of rate
	T-Series	±0.05% of rate
	R-Series	±0.25% of rate

(1) Stated flow accuracy includes the combined effects of repeatability, linearity, and hysteresis.

(2) For the details of flow accuracy and repeatability specifications, refer to the product data sheet for each sensor family.

Model 3500/3700 density performance (liquid only)

	Sensor model	g/cm ³	kg/m ³
Accuracy⁽¹⁾	ELITE	±0.0002	±0.2
	F-Series	±0.001	±1.0
	H-Series	±0.001	±1.0
	T-Series	±0.002	±2.0
	R-Series	Not rated for density	
Repeatability⁽¹⁾	ELITE	±0.0001	±0.1
	F-Series	±0.0005	±0.5
	H-Series	±0.0005	±0.5
	T-Series	±0.0005	±0.5
	R-Series	Not rated for density	

(1) For the details of the density accuracy and repeatability specifications, refer to the product data sheet for each sensor family.

Model 3500/3700 gas flow performance

	Sensor model	
Mass flow accuracy	ELITE®	±0.35% of rate
	F-Series	±0.50% of rate
	H-Series	±0.50% of rate
	T-Series	±0.65% of rate
	R-Series	±0.75% of rate
Repeatability	ELITE	±0.20% of rate
	F-Series	±0.25% of rate
	H-Series	±0.25% of rate
	T-Series	±0.25% of rate
	R-Series	±0.50% of rate

Weight

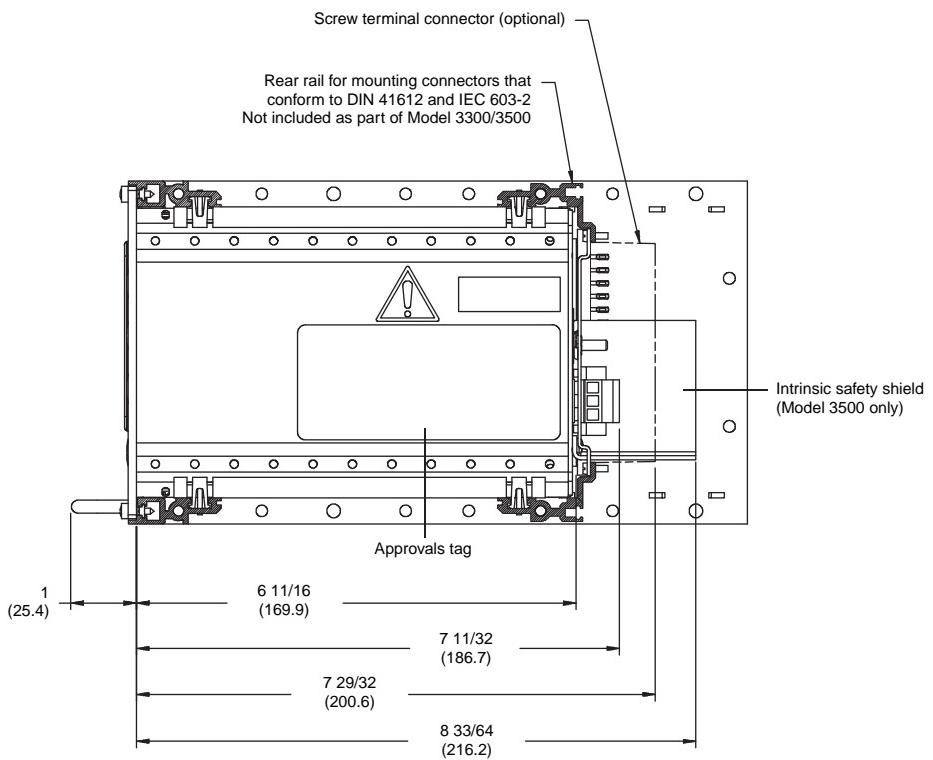
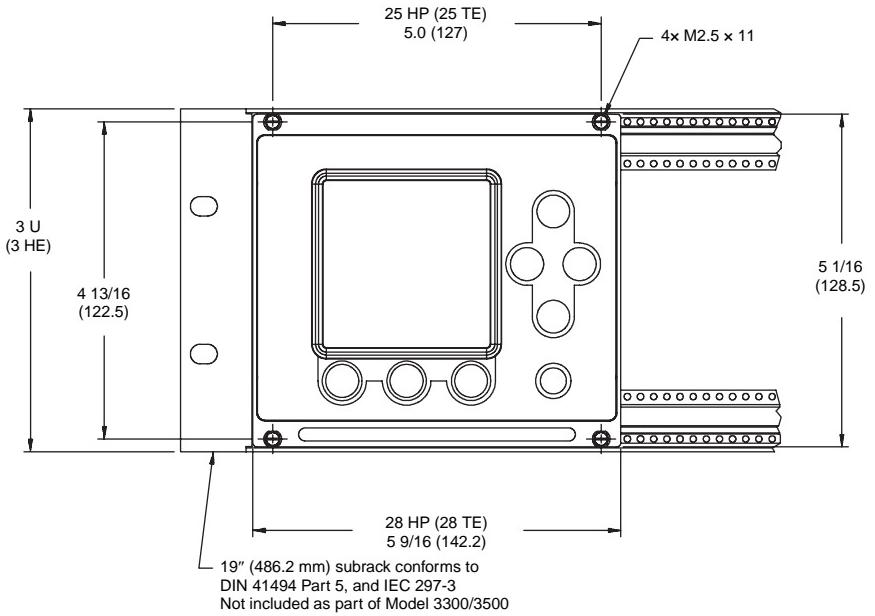
Models 3300 and 3500	Maximum 3.5 lb (1.6 kg), excluding prepared cables
Models 3350 and 3700	19 lb (8.6 kg)

Dimensions

Rack-mount Model 3300/3500

Dimensions in *inches*
(mm)

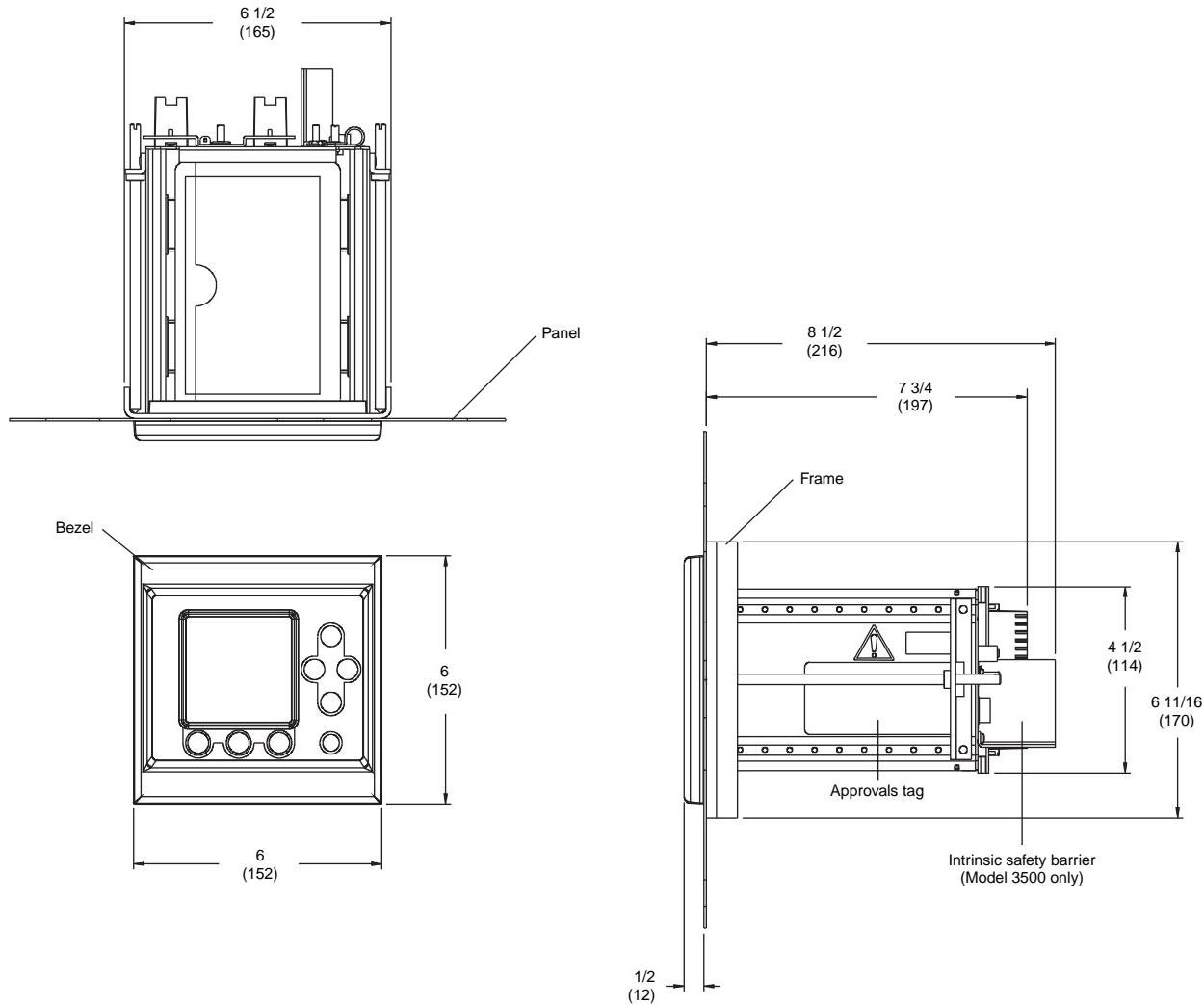
1 U = 1 HE = 1.750 inches (44.45 mm)
1 HP = 1 TE = 0.200 inches (5.08 mm)



Dimensions *continued*

Panel-mount Model 3300/3500 with screw-type connectors

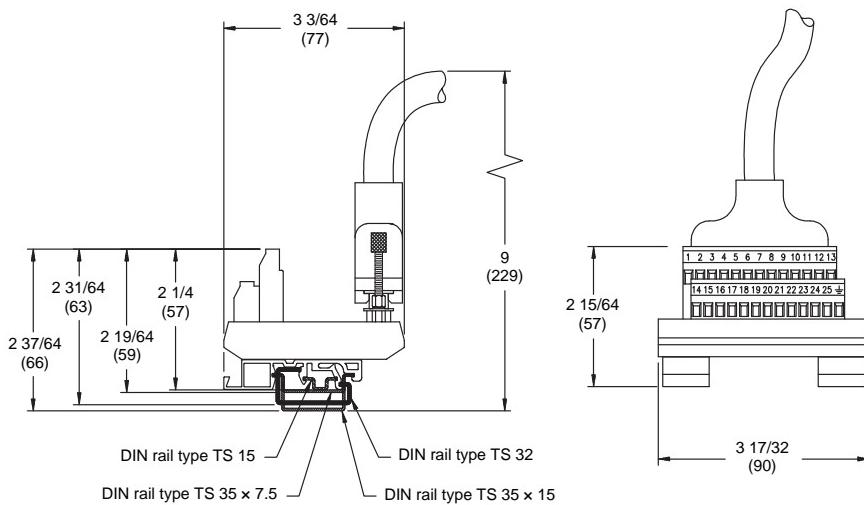
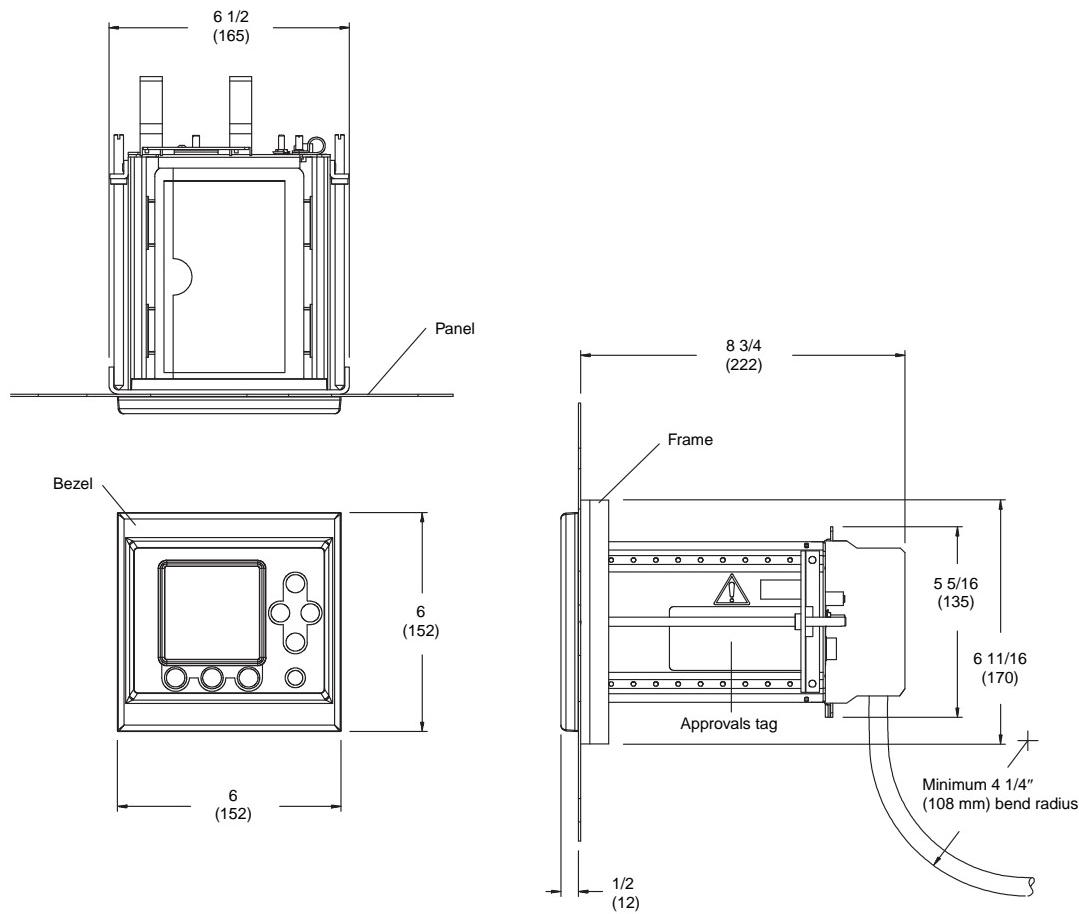
Dimensions in *inches*
(*mm*)



Dimensions *continued*

Panel-mount Model 3300/3500 with optional I/O cable

Dimensions in *inches*
(mm)

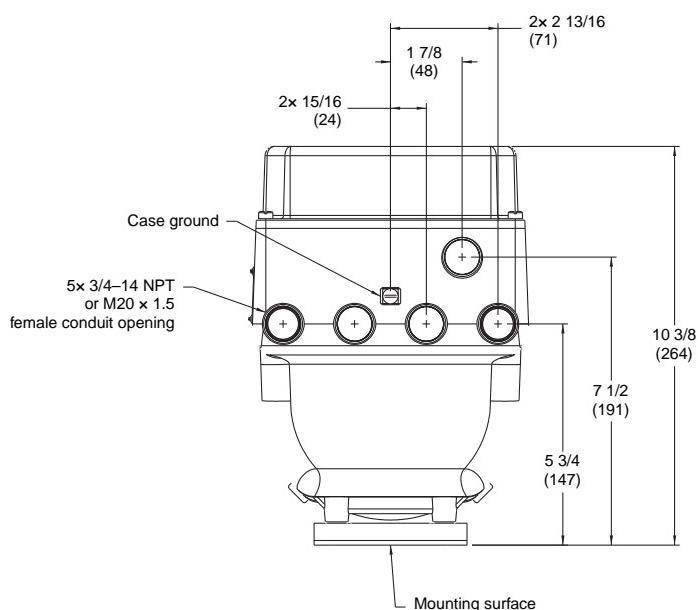
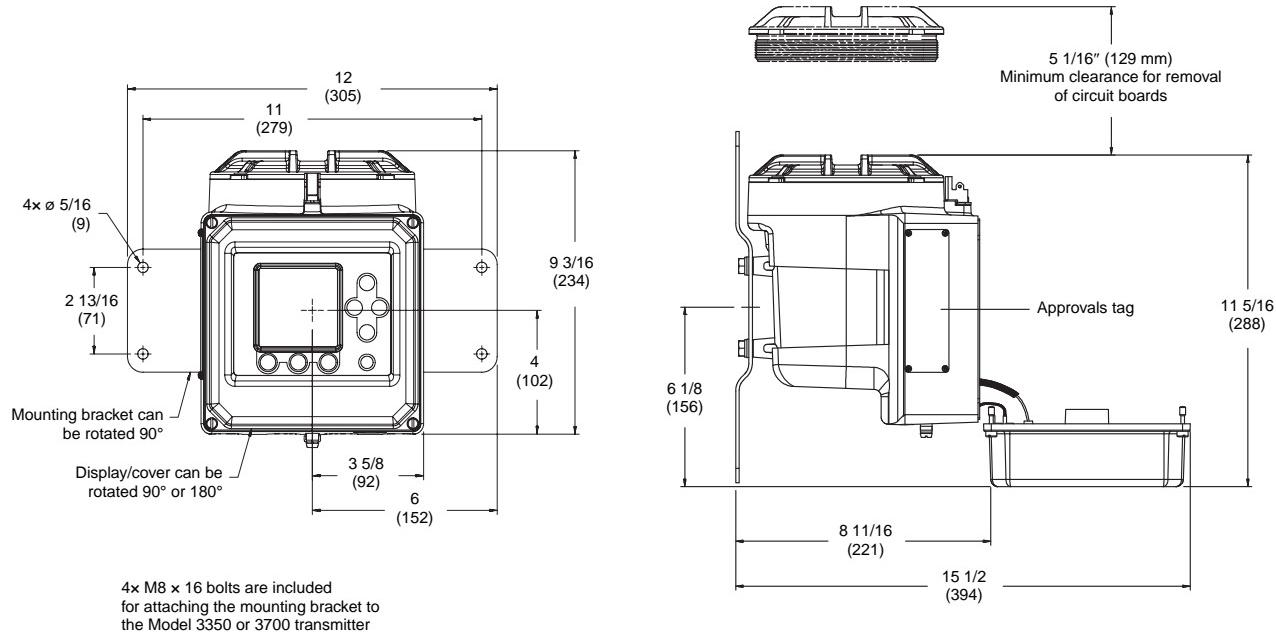


**DIN-rail-mount
screw terminals detail**

Dimensions *continued*

Field-mount Model 3350/3700

Dimensions in *inches*
(*mm*)



Conduit openings view

Ordering information — Model 3300

Model	Product description
3300	Micro Motion Coriolis Discrete Controller; remote rack/panel-mount
Code	Mounting options
R	DIN rack
P	Panel-mount
Code	Power supply options
1	85 to 265 VAC
2	18 to 30 VDC (recommended for 24 VDC users)
Code	Communication gateway module
A	No communication gateway module
Code	Additional hardware modules
0	No additional hardware modules
1 ⁽¹⁾	Weights & Measures Custody Transfer (all other than OIML)
2	Weights & Measures Custody Transfer (OIML)
Code	Sensor interface
0	No sensor interface
Code	Terminals
A	Solder pins (use with mounting code R only)
B	Screw terminals
C	Prepared cables; 2 foot (0.6 m) length (use with mounting code P only)
D	Prepared cables; 5 foot (1.5 m) length (use with mounting code P only)
E	Prepared cables; 10 foot (3 m) length (use with mounting code P only)
Code	Relays and housings
1	No relays and housing
Code	Approvals
M	Micro Motion standard (no approval)
U	UL
C	CSA (Canada only)
A	CSA C-US (U.S.A. and Canada)
Q ⁽²⁾	General purpose with CMC (China only)

Continued on next page

(1) Control Application code must be code D (Discrete Batch Controller).

(2) Available with Chinese (M) language option only.

Ordering information — Model 3300 *continued*

Code	Language		
A	English local display	Danish quick reference guide	English manual
D	English local display	Dutch quick reference guide	English manual
E	English local display	English quick reference guide	English manual
F	French local display	French quick reference guide	French manual
G	German local display	German quick reference guide	German manual
H	English local display	Finnish quick reference guide	English manual
I	English local display	Italian quick reference guide	English manual
J	Japanese local display	Japanese quick reference guide	English manual
M	English local display	Chinese quick reference guide	English manual
N	English local display	Norwegian quick reference guide	English manual
O	English local display	Polish quick reference guide	English manual
P	English local display	Portuguese quick reference guide	English manual
S	English local display	Spanish quick reference guide	Spanish manual
W	English local display	Swedish quick reference guide	English manual
B	English local display	Hungarian CE requirements document	English manual and quick reference guide
C	English local display	Czech CE requirements document	English manual and quick reference guide
K	English local display	Slovak CE requirements document	English manual and quick reference guide
L	English local display	Latvian CE requirements document	English manual and quick reference guide
T	English local display	Estonian CE requirements document	English manual and quick reference guide
U	English local display	Greek CE requirements document	English manual and quick reference guide
V	English local display	Lithuanian CE requirements document	English manual and quick reference guide
Y	English local display	Slovenian CE requirements document	English manual and quick reference guide
Code	Control application software		
Z	Process monitor/totalizer (standard)		
D	Discrete batch controller		
Code	Measurement application software		
Z	No measurement application software		
Code	Specialty applications		
Z	No specialty applications		
X	ETO application		
Typical model number: 3300 R 1 A 0 0 A 1 U E D Z Z			

Ordering information — Model 3350

Model	Product description
3350	Micro Motion Coriolis Discrete Controller; remote field-mount
Code	Mounting options
A	Field-mount
Code	Power supply options
1	85 to 265 VAC
2	18 to 30 VDC (recommended for 24 VDC users)
Code	Communication gateway module
A	No communication gateway module
Code	Additional hardware modules
0	No additional hardware modules
1 ⁽¹⁾	Weights & Measures Custody Transfer (all other than OIML)
2	Weights & Measures Custody Transfer (OIML)
Code	Sensor interface
0	No sensor interface
Code	Conduit connections
A	M20 without glands
B	M20 with three increased safety glands
C	M20 with five increased safety glands
D	3/4-inch NPT without conduit seals
Code	Approvals
M	Micro Motion standard (no approval)
U	UL
C	CSA (Canada only)
A	CSA C-US (U.S.A. and Canada)
Z	ATEX — Zone 1 Equipment Category 2
P ⁽²⁾	NEPSI — Safe area

Continued on next page

(1) Control Application code must be code D (Discrete Batch Controller).

(2) Available only with language option M (Chinese).

Ordering information — Model 3350 *continued*

Code	Language		
A	English local display	Danish quick reference guide	English manual
D	English local display	Dutch quick reference guide	English manual
E	English local display	English quick reference guide	English manual
F	French local display	French quick reference guide	French manual
G	German local display	German quick reference guide	German manual
H	English local display	Finnish quick reference guide	English manual
I	English local display	Italian quick reference guide	English manual
J	Japanese local display	Japanese quick reference guide	English manual
M	English local display	Chinese quick reference guide	English manual
N	English local display	Norwegian quick reference guide	English manual
O	English local display	Polish quick reference guide	English manual
P	English local display	Portuguese quick reference guide	English manual
S	English local display	Spanish quick reference guide	Spanish manual
W	English local display	Swedish quick reference guide	English manual
B	English local display	Hungarian CE requirements document	English manual and quick reference guide
C	English local display	Czech CE requirements document	English manual and quick reference guide
K	English local display	Slovak CE requirements document	English manual and quick reference guide
L	English local display	Latvian CE requirements document	English manual and quick reference guide
T	English local display	Estonian CE requirements document	English manual and quick reference guide
U	English local display	Greek CE requirements document	English manual and quick reference guide
V	English local display	Lithuanian CE requirements document	English manual and quick reference guide
Y	English local display	Slovenian CE requirements document	English manual and quick reference guide
Code	Control application software		
Z	Process monitor/totalizer (standard)		
D	Discrete batch controller		
Code	Measurement application software		
Z	No measurement application software		
Code	Specialty applications		
Z	No specialty applications		
X	ETO application		
Typical model number: 3350 A 1 0 0 A U E D Z Z			

Ordering information — Model 3500

Model	Product description
3500	Micro Motion Coriolis multivariable transmitter and discrete controller; remote rack/panel-mount
Code	Mounting options
R	DIN rack
P	Panel-mount
Code	Power supply options
1	85 to 265 VAC
2	18 to 30 VDC (recommended for 24 VDC users)
Code	Remote core processor
A	Sensor interface code 5 None
B	Sensor interface code 6 (remote core processor) 1/2"-NPT remote core processor — no gland
E	M20 remote core processor — no gland
F	Remote core processor — brass/nickel cable gland
G	Remote core processor — stainless steel cable gland
Code	Additional hardware modules
0	No additional hardware modules
1 ⁽¹⁾	Weights & Measures Custody Transfer (all other than OIML)
2	Weights & Measures Custody Transfer (OIML)
Code	Sensor interface
5	4-wire interface to sensors with core processors
6	4-wire remote mount transmitter with 9-wire remote core processor to sensors with junction box
Code	Terminals
B	Screw terminals
C	Prepared cables; 2 foot (0.6 m) length (use with mounting code P only)
D	Prepared cables; 5 foot (1.5 m) length (use with mounting code P only)
E	Prepared cables; 10 foot (3 m) length (use with mounting code P only)
Code	Relays and housings
1	No relays and housing
Code	Approvals
M	Micro Motion standard (no approval)
U	UL
C	CSA (Canada only)
A	CSA C-US (U.S.A. and Canada)
B	ATEX — Safe area with IS sensor outputs
P ⁽²⁾	NEPSI — Safe area

Continued on next page

(1) Control Application code must be code D (Discrete Batch Controller).

(2) Available with Chinese (M) language option only.

Ordering information — Model 3500 *continued*

Code	Language		
A	English local display	Danish quick reference guide	English manual
D	English local display	Dutch quick reference guide	English manual
E	English local display	English quick reference guide	English manual
F	French local display	French quick reference guide	French manual
G	German local display	German quick reference guide	German manual
H	English local display	Finnish quick reference guide	English manual
I	English local display	Italian quick reference guide	English manual
M	English local display	Chinese quick reference guide	English manual
N	English local display	Norwegian quick reference guide	English manual
O	English local display	Polish quick reference guide	English manual
P	English local display	Portuguese quick reference guide	English manual
S	English local display	Spanish quick reference guide	Spanish manual
W	English local display	Swedish quick reference guide	English manual
B	English local display	Hungarian CE requirements document	English manual and quick reference guide
C	English local display	Czech CE requirements document	English manual and quick reference guide
K	English local display	Slovak CE requirements document	English manual and quick reference guide
L	English local display	Latvian CE requirements document	English manual and quick reference guide
T	English local display	Estonian CE requirements document	English manual and quick reference guide
U	English local display	Greek CE requirements document	English manual and quick reference guide
V	English local display	Lithuanian CE requirements document	English manual and quick reference guide
Y	English local display	Slovenian CE requirements document	English manual and quick reference guide
Code	Control application software		
Z	Process monitor/totalizer (standard)		
C ⁽¹⁾	Process monitor/totalizer; with meter verification, structural integrity method		
D	Discrete batch controller		
E ⁽¹⁾	Discrete batch controller; with meter verification, structural integrity method		
Code	Measurement application software		
Z	No measurement application software		
G	Enhanced density		
B	Enhanced density with predefined algorithms for food and beverage		
A ⁽²⁾	Petroleum measurement		
Code	Specialty applications		
Z	No specialty applications		
X	ETO application		

Typical model number: 3500 R 1 A 0 5 A 1 U E D B Z

(1) Requires the Model 3500 to be connected to an enhanced core processor.

(2) Not available with sensor interface code 3.

Ordering information — Model 3700

Model	Product description
3700	Micro Motion Coriolis multivariable transmitter and discrete controller; remote field-mount
Code	Mounting options
A	Field-mount
Code	Power supply options
1	85 to 265 VAC
2	18 to 30 VDC (recommended for 24 VDC users)
Code	Remote core processor
A	Sensor interface code 5 None Sensor interface code 6 (remote core processor) 1/2"-NPT remote core processor — no gland M20 remote core processor — no gland Remote core processor — brass/nickel cable gland Remote core processor — stainless steel cable gland
Code	Additional hardware modules
0	No additional hardware modules
1 ⁽¹⁾	Weights & Measures Custody Transfer (all other than OIML)
2	Weights & Measures Custody Transfer (OIML)
Code	Sensor interface
5	4-wire interface to sensors with core processors
6	4-wire remote mount transmitter with 9-wire remote core processor to sensors with junction box
Code	Conduit connections
A	M20 without glands
B	M20 with three increased safety glands
C	M20 with five increased safety glands
D	3/4-inch NPT without conduit seals
Code	Approvals
M	Micro Motion standard (no approval)
U	UL
C	CSA (Canada only)
A	CSA C-US (U.S.A. and Canada)
Z	ATEX — Zone 1 Equipment Category 2
P ⁽²⁾	NEPSI — Safe area

Continued on next page

(1) Control Application code must be code D (Discrete Batch Controller).

(2) Available only with language option M (Chinese).

Ordering information — Model 3700 *continued*

Code	Language		
A	English local display	Danish quick reference guide	English manual
D	English local display	Dutch quick reference guide	English manual
E	English local display	English quick reference guide	English manual
F	French local display	French quick reference guide	French manual
G	German local display	German quick reference guide	German manual
H	English local display	Finnish quick reference guide	English manual
I	English local display	Italian quick reference guide	English manual
M	English local display	Chinese quick reference guide	English manual
N	English local display	Norwegian quick reference guide	English manual
O	English local display	Polish quick reference guide	English manual
P	English local display	Portuguese quick reference guide	English manual
S	English local display	Spanish quick reference guide	Spanish manual
W	English local display	Swedish quick reference guide	English manual
B	English local display	Hungarian CE requirements document	English manual and quick reference guide
C	English local display	Czech CE requirements document	English manual and quick reference guide
K	English local display	Slovak CE requirements document	English manual and quick reference guide
L	English local display	Latvian CE requirements document	English manual and quick reference guide
T	English local display	Estonian CE requirements document	English manual and quick reference guide
U	English local display	Greek CE requirements document	English manual and quick reference guide
V	English local display	Lithuanian CE requirements document	English manual and quick reference guide
Y	English local display	Slovenian CE requirements document	English manual and quick reference guide
Code	Control application software		
Z	Process monitor/totalizer (standard)		
C ⁽¹⁾	Process monitor/totalizer; with meter verification, structural integrity method		
D	Discrete batch controller		
E ⁽¹⁾	Discrete batch controller; with meter verification, structural integrity method		
Code	Measurement application software		
Z	No measurement application software		
G	Enhanced density		
B	Enhanced density with predefined algorithms for food and beverage		
A ⁽²⁾	Petroleum measurement		
Code	Specialty applications		
Z	No specialty applications		
X	ETO application		

Typical model number: 3700 A 1 A 0 5 A U E D B Z

(1) Requires the Model 3700 to be connected to an enhanced core processor.

(2) Not available with sensor interface option 3.

Ordering information — Model 3100 high energy relay

Model	Product description
3100	Micro Motion Coriolis High Energy Relay
Code	Device (order separately)
A	3 relays; 24–250 VAC; 5 A
B	3 relays; 0–70 VDC; 5 A
Code	Housing
1	No housing
2 ⁽¹⁾	NEMA 4X housing for relays only
Code	Future expansion
A	Reserved for future use
Code	Approvals
M	Micro Motion standard (no approval)
U	UL Class I, Div. 2, Groups A, B, C, and D
C	CSA Class I, Div. 2, Groups A, B, C, and D
B	ATEX — Equipment Category 3 (Zone 2)

Typical model number: 3100 A 2 A U

(1) Not available with approval code B.

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